



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/807,417	03/23/2004	R. Shane Fazzio	10030899-1	3854
57299	7590	03/01/2006		
AVAGO TECHNOLOGIES, LTD. P.O. BOX 1920 DENVER, CO 80201-1920			EXAMINER LEWIS, MONICA	
			ART UNIT 2822	PAPER NUMBER

DATE MAILED: 03/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/807,417	Applicant(s) FAZZIO, R. SHANE	
	Examiner Monica Lewis	Art Unit 2822	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) 12-19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>3/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This office action is in response to the election filed December 29, 2005.

Election/Restrictions

2. Applicant's election without traverse of Group I in the reply filed on 12/29/05 is acknowledged.

Specification

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Drawings

4. Figures 1 and 2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance. document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

Art Unit: 2822

5. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the following must be shown or the feature(s) canceled from the claim(s): a) caulking agent caulks the inner surface of the gasket (See Claim 7). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Art Unit: 2822

7. Claims 1-3, 5, 6, 9 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Goldmann et al. (U.S. Patent No. 6,459,160).

In regards to claim 1, Goldmann et al. ("Goldmann") discloses the following:

a) a device chip including a substrate (114) and at least one circuit element (20) fabricated on the substrate (For Example: See Figure 2); and

b) a cap (113) bonded to said device, said device chip and said cap defining a hermitically sealed cavity wherein the cavity is sealed with bonding agent (132) and caulking agent (142, 152 and 54) (For Example: See Figure 2 and Column 7 Line 30)(Note: Merriam-Webster defines caulk as to stop up and make tight against leakage. Goldmann discloses a hermetic sealing structure (131), which is comprised of (142, 152 and 54), that protects the device from the ambient atmosphere outside.).

In regards to claim 2, Goldmann discloses the following:

a) the bonding agent comprises gold (For Example: See Column 9 Lines 28-30).

In regards to claim 3, Goldmann discloses the following:

a) the caulking agent is selected from a group consisting of amorphous fluorocarbon polymer, polyimide materials, and benzocyclobutene based materials (For Example: See Column 7 Lines 45 and 46).

In regards to claim 5, Goldmann discloses the following:

a) the caulking agent caulks at least a portion of the bonding agent (For Example: See Figure 2)(Note: Merriam-Webster defines caulk as to stop up and make tight against leakage. Goldmann discloses a hermetic sealing structure (131), which is comprised of (142, 152 and 54), that protects the device from the ambient atmosphere outside.).

In regards to claim 6, Goldmann discloses the following:

a) the caulking agent caulks at least a portion of the cap (For Example: See Figure 2)(Note: Merriam-Webster defines caulk as to stop up and make tight against leakage. Goldmann discloses a hermetic sealing structure (131), which is comprised of (142, 152 and 54), that protects the device from the ambient atmosphere outside.).

Art Unit: 2822

In regards to claim 9, Goldmann discloses the following:

a) comprises multiple layers of the caulking agent (For Example: See Figure 2))(Note: Merriam-Webster defines caulk as to stop up and make tight against leakage. Goldmann discloses a hermetic sealing structure (131), which is comprised of (142, 152 and 54), that protects the device from the ambient atmosphere outside.).

In regards to claim 10, Goldmann discloses the following:

a) multiple layers of the caulking agent comprises layers having different caulking material relative to other layers of the caulking agent (For Example: See Column 7 Lines 45 and 46 and Column 8 Lines 1-7)(Note: Merriam-Webster defines caulk as to stop up and make tight against leakage. Goldmann discloses a hermetic sealing structure (131), which is comprised of (142, 152 and 54), that protects the device from the ambient atmosphere outside.).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Goldmann et al. (U.S. Patent No. 6,459,160) in view of Kikushima et al. (U.S. Publication No. 2003/0061693).

In regards to claim 4, Goldmann fails to disclose the following:

a) the circuit element is a resonator.

However, Kikushima et al. ("Kikushima") discloses a semiconductor device that has a resonator (3) (For Example: See Figure 1b). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the semiconductor of Goldmann to include a resonator as disclosed in Kikushima because it aids in providing a communication device (For Example: See Paragraph 4).

Additionally, since Goldmann and Kikushima are both from the same field of endeavor, the purpose disclosed by Kikushima would have been recognized in the pertinent art of Goldmann.

10. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goldmann et al. (U.S. Patent No. 6,459,160) in view of Eberhard et al. (U.S. Patent No. 6,770,885).

In regards to claim 7, Goldmann fails to disclose the following:

a) cap includes gasket having an inner surface and an outer surface and wherein the caulking agent caulks the inner surface of the gasket.

However, Eberhard et al. ("Eberhard") discloses a cap that includes a gasket (205) having an inner surface and an outer surface and wherein the caulking agent caulks the inner surface of the gasket (For Example: See Figure 2 and Column 7 Lines 45-47). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the semiconductor of Goldmann to include a cap that includes a gasket having an inner surface and an outer surface and wherein the caulking agent caulks the inner surface of the gasket as disclosed in Eberhard because it aids in reducing leakage (For Example: See Column 7 Lines 45-47).

Additionally, since Goldmann and Eberhard are both from the same field of endeavor, the purpose disclosed by Eberhard would have been recognized in the pertinent art of Goldmann.

In regards to claim 8, Goldmann fails to disclose the following:

a) cap includes gasket having an inner surface and an outer surface and wherein the caulking agent caulks the outer surface of the gasket.

However, Eberhard discloses a cap that includes a gasket having an inner surface and an outer surface and wherein the caulking agent caulks the outer surface of the gasket (For

Art Unit: 2822

Example: See Figure 2 and Column 7 Lines 45-47). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the semiconductor of Goldmann to include a cap that includes a gasket having an inner surface and an outer surface and wherein the caulking agent caulks the outer surface of the gasket as disclosed in Eberhard because it aids in reducing leakage (For Example: See Column 7 Lines 45-47).

Additionally, since Goldmann and Eberhard are both from the same field of endeavor, the purpose disclosed by Eberhard would have been recognized in the pertinent art of Goldmann.

11. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Goldmann et al. (U.S. Patent No. 6,459,160) in view of McHerron et al. (U.S. Patent No. 6,046,074).

In regards to claim 11, Goldmann fails to disclose the following:

a) multiple layers of the caulking agent comprises layers have the same caulking material relative to other layers of the caulking agent.

However, McHerron et al. ("McHerron") discloses a caulking agent that comprises layers that have the same caulking material relative to other layers of the caulking agent (For Example: See Figure 5). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the semiconductor of Goldmann to include a caulking agent that comprises layers having the same caulking material relative to other layers of the caulking agent as disclosed in McHerron because it aids in providing good strength (For Example: See Column 4 Lines 40-50).

Additionally, since Goldmann and McHerron are both from the same field of endeavor, the purpose disclosed by McHerron would have been recognized in the pertinent art of Goldmann.

Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Monica Lewis whose telephone number is 571-272-1838. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Zandra Smith can be reached on 571-272-2429. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300 for regular and after final communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

ML

February 17, 2006

A handwritten signature in black ink, consisting of stylized, overlapping loops and a long horizontal stroke extending to the right.